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email:dpento@clemson.edu

IMPORTED FIRE ANTS IMPACT ON SOUTH CAROLINA — 1999 UPDATE

WHAT MAKES THE IMPORTED FIRE ANT (IFA) SO TOUGH?

- IFA is a nonnative, invasive insect with no natural enemies or controls in North America.
- Any infested area contains many colonies of a wide range of development and maturity.
- Colonies move horizontally and vertically in the soil profile, even down to the water table, to avoid adverse temperatures (freezing) and moisture stress (drought).

HUMAN HEALTH — 1998

- 33,000 (5%) of the sting cases in South Carolina required medical consultation or treatment.
- Two confirmed deaths in SC associated with IFA stings.
- The medical cost of treating IFA stings was about 2.4 million dollars.
- The estimated incidence rate for IFA stings in SC increased by 34% from 71 per 10, 000 population in 1986 to 94 per 10,000 in 1998.

Fire ants are a continuing community health threat in SC. The elderly, children, and youth have the highest incidence of IFA stings. Bedridden or incapacitated patients and infants are at particular risk since they cannot easily remove fire ants from their bodies. Limited resource citizens are impacted much more than others in IFA infested areas. Tourists and new residents from non-infested areas are other high-risk groups.

A baby suffering from imported fire ant stings.
Photo by MUSC.

WILDLIFE IMPACTS — 1998

Direct impacts occur on native game and non-game species and are documented on: bobwhite quail; nesting turtles; Southeastern kestrels; colonial waterbirds; other threatened or endangered species.

Imported fire ants indirectly impact species in infested areas by: reducing the number of insects available to insectivorous invertebrates; irritation from stings; habitat denial; possible behavioral changes. Indirect impacts are documented on: Bobwhite quail; American alligators; turtles; small mammals; loggerhead shrikes.

Fire ants attacking quail chicks as they begin to break through the egg shell. Photo by C. Allen.

Imported fire ants affect ecological functioning by disrupting seed dispersal and pollination. These impacts occur throughout the wildlife communities and may affect the viability and integrity of the communities.

HOUSEHOLD ECONOMIC IMPACTS — 1998

A 1998 survey of 809 SC households is being used to derive objective estimates of the household-related impact of IFA on the SC economy, and SC households' willingness to pay for IFA control.

- 56% of the households consider IFA a problem and 14% a serious problem.
- 69% say they have been a longtime problem in their residence or yard.
- 33% say fire ants restrict their family from doing activities in the yard or garden.
- 93 % said it was important to them to control fire ants.
- The average economic impact is $86/year/household or $124.7 M for the state.

The amount homeowners are willing to pay is expected to be greater than their expenditures for control and remediation since the expenditure data do not reflect the time involved in control and remediation, or the value of outdoor activities that are curtailed by the fire ants.

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Prepared by Paul M. Horton, Steven E. Miller, Craig R. Allen, and Clyde S. Gorsuch, Extension Entomologist/Professor, Department of Entomology, Soils, and Plant Sciences, Clemson University and Samuel T. Caldwell, MUSC.

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